CLAIMS

1.   A method for selecting, in an electronic product catalog system (1), a question to be presented to a user of the system (1) to assist identification of a suitable product from a set of
5   potentially suitable products according to the user's needs, the question being selected from a group of questions stored in said system (1), which method comprises:

        processing product data stored in said system (1), defining features of products in said set and product scores associated with respective products in said set, and rule data stored in said system (1), defining rules relating answers associated with said questions to product feature
10 constraints, to calculate question scores (Q_s) for respective said questions such that the question score (Q_s) for each question is dependent on one of (a) the product scores of any products excluded from said set if a said rule relating to an answer associated with that question is effective, and (b) the product scores of any products retained in said set if a said rule relating to an answer associated with that question is effective; and

15   selecting the question to be presented to the user in dependence on said question scores (Q_s).

2.   A method as claimed in claim 1 wherein the question score (Q_s) for each question is dependent on one of:

20   (a) for each said rule relating to any answer associated with that question, the product scores of any products excluded from said set if that rule is effective; and

        (b) for each said rule relating to any answer associated with that question, the product scores of any products retained in said set if that rule is effective.

25 3.   A method as claimed in claim 2 including:

        processing said product data and said rule data to calculate weights (W_R) for respective said rules such that the weight (W_R) for each rule is dependent on one of (c) the product scores of any products excluded from said set if that rule is effective, and (d) the product scores of any products retained in said set if that rule is effective;

for each rule, assigning answer scores (A_S) dependent on the weight (W_R) of that rule to the answers to which that rule relates; and

calculating said question scores (Q_S) such that the question score (Q_S) for each question is dependent on the answer scores (A_S) for the answers associated with that question.

4.   A method as claimed in any preceding claim wherein the question score (Q_S) for each question is dependent on only one of (a) and (b).

5.   A method as claimed in any preceding claim wherein the product scores are predetermined in said system (1) for respective products.

6.   A method as claimed in claim 5 wherein said product scores comprise, for each product, a group of product scores each associated with a different set of predefined user needs, and wherein the method includes selecting from the group of product scores for a product the product score corresponding to a current set of user needs.

7.   A method as claimed in claim 5 or claim 6 wherein said product scores comprise product probabilities each indicative of the probability of the associated product being suitable for the user.

8.   A method as claimed in claim 7 wherein said product probabilities are product reject probabilities each defining the probability of the associated product being rejected as a suitable product for the user.

9.   A method as claimed in claim 8 and claim 3 wherein the weight (W_R) for each rule is dependent on the sum of the reject probabilities of any products excluded from said set if that rule is effective.

10.   A method as claimed in any one of claims 1 to 4 including calculating the product scores associated with respective products in dependence on values assigned to product features by said rules.

5   11.   A method as claimed in claim 3, or any one of claims 5, 6 and 10 when dependent on claim 3, wherein the weight (W_R) for each rule is dependent on a resultant set value, which value is dependent on the product scores of at least a subset (FS) of any products retained in said set if that rule is effective.

10   12.   A method as claimed in claim 11 wherein the weight (W_R) for each rule is dependent on the difference between a current set value, dependent on the product scores of at least a subset (FS) of the products in said set, and said resultant set value.

13.   A method as claimed in claim 11 or claim 12 wherein said product scores comprise, for 15   each product, a buyer score indicative of the expected suitability of the product for the user, and a seller score, indicative of the benefit to the product supplier associated with sale of the product, and wherein the or each said set value is dependent on the buyer score and seller score of each product in said subset (FS).

20   14.   A method as claimed in claim 13 wherein the or each set value is further dependent on additional data stored in said system.

15.   A method as claimed in any preceding claim wherein, for each said question, answer probabilities indicative of the probability of a user providing respective answers associated with 25   that question, are pre-stored in the system, and wherein the question score (Q_S) for each question is also dependent on the answer probabilities for respective answers associated with that question.

16.   A method as claimed in claim 15 wherein, for each answer, a plurality of answer 30   probabilities are pre-stored in the system, each answer probability indicating the probability of a

user providing that answer for a different set of predefined user needs, and wherein the method includes selecting for a said answer the answer probability corresponding to a current set of user needs.

5   17.   A method as claimed in any preceding claim wherein said set of potentially suitable products is determined by previous interaction of the user with said system.

18.   A method as claimed in claim 17 including receiving data defining said set of potentially suitable products from a feature-based filtering component (2) of said system (1).

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19.   A method as claimed in any preceding claim including supplying the selected question for display to the user.

20.   A method as claimed in claim 19 including supplying at least some of the answers
15 associated with the selected question for display to the user.

21.   A method as claimed in claim 20 and claim 3 including supplying the answers for display in an order dependent on the answer scores (A_S) thereof.

20 22.   A method as claimed in any one of claims 19 to 21, when dependent on claim 18, including, after supplying the selected question for display to the user:
      receiving from said feature-based filtering component (2) data indicative of the answer given by the user in response to the selected question; and
      determining whether any of the rules are effective based on the user's answer, and if so
25 supplying data indicative of any products eliminated from said set of products to the feature-based filtering component (2).

23.   A method as claimed in any preceding claim including, prior to selecting a said question to be presented to a user:

generating question data, comprising said group of questions, and storing the question data in said system (1);

generating catalog data, including said product data for products in said set, defining features of catalog products and product scores associated with respective products, and storing
5   the catalog data in said system (1); and

generating said rule data and storing the rule data in said system (1).

24.   Apparatus (3) for selecting a question to be presented to a user of an electronic product catalog system (1) to assist identification of a suitable product from a set of potentially suitable
10 products according to the user's needs, the apparatus comprising:

memory (14) for storing question data, comprising a group of questions from which a question is to be selected, product data, defining features of products in said set and product scores associated with respective products in said set, and rule data defining rules relating answers associated with said questions to product feature constraints; and

15   control logic (8) configured to process said product data and said rule data to calculate question scores (Q_s) for respective said questions such that the question score (Q_s) for each question is dependent on one of (a) the product scores of any products excluded from said set if a said rule relating to an answer associated with that question is effective, and (b) the product scores of any products retained in said set if a said rule relating to an answer associated with that
20 question is effective;

wherein the control logic (8) is configured to select the question to be presented to the user in dependence on said question scores (Q_s).

25.   Apparatus as claimed in claim 24 wherein the control logic (8) is responsive to receipt,
25 from a feature-based filtering component (2) of said system (1), of data defining said set of potentially suitable products to calculate said question scores and select the question to be presented to the user, the control logic (8) being further configured to supply the selected question to the feature-based filtering component (2) for display to the user.

26.   An electronic product catalog system (1) comprising apparatus as claimed in claim 24 or claim 25.

27.   A computer program element comprising computer program code means which, when
5   loaded in a processor (8) of an electronic product catalog system (1), configures the processor
     (8) to perform a method as claimed in any one of claims 1 to 23.